

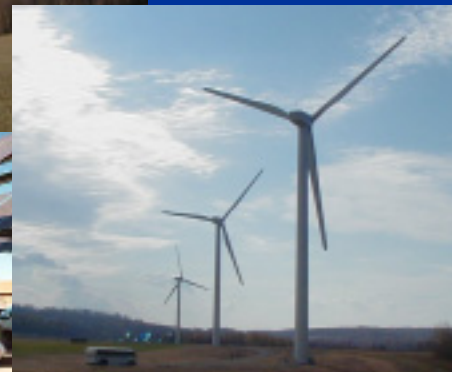
Fuel Price Stability Benefits of Renewables: Adding Value for Green Power Customers

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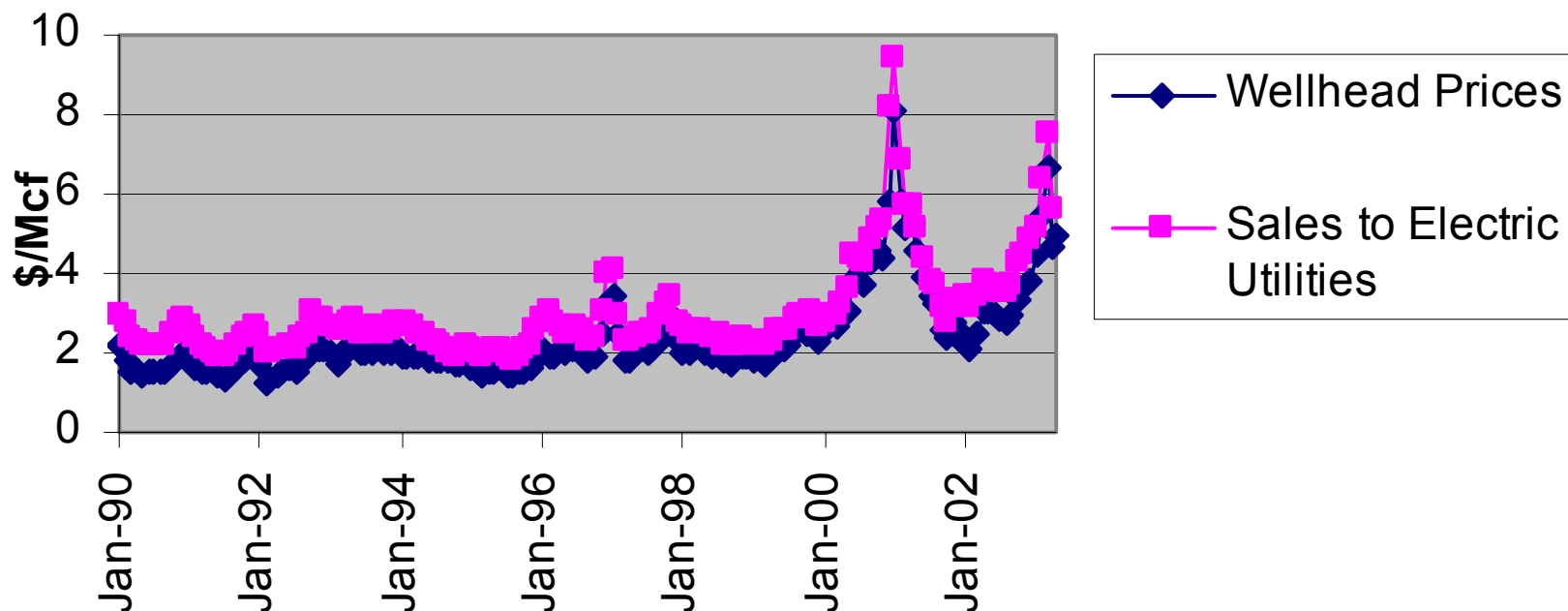
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Why Offer Green Power Customers Fuel Price Stability Benefits?

- Most renewables use no fuel and have fixed costs over time
- Cost-based premiums should take into account the difference between variable-priced energy and fixed-price energy
- Customers value price stability; it could influence their decision to buy green power
 - Particularly important motivator for non-residential customers

Natural Gas Price Volatility

Natural Gas Prices



Source: EIA

Utilities that Offer Fuel Price Stability

Benefits of Green Power

- Alliant Energy (WI, IA, MN)
- Austin Energy (TX)
- Clallum County PUD (WA)
- Eugene Water & Electric Board (OR)
- Madison Gas & Electric (WI)
- Oklahoma Gas & Electric
- Otter Tail Power (MN)
- We Energies (WI, MI)
- Xcel Energy (CO, MN)

Methods of Offering Price Protection

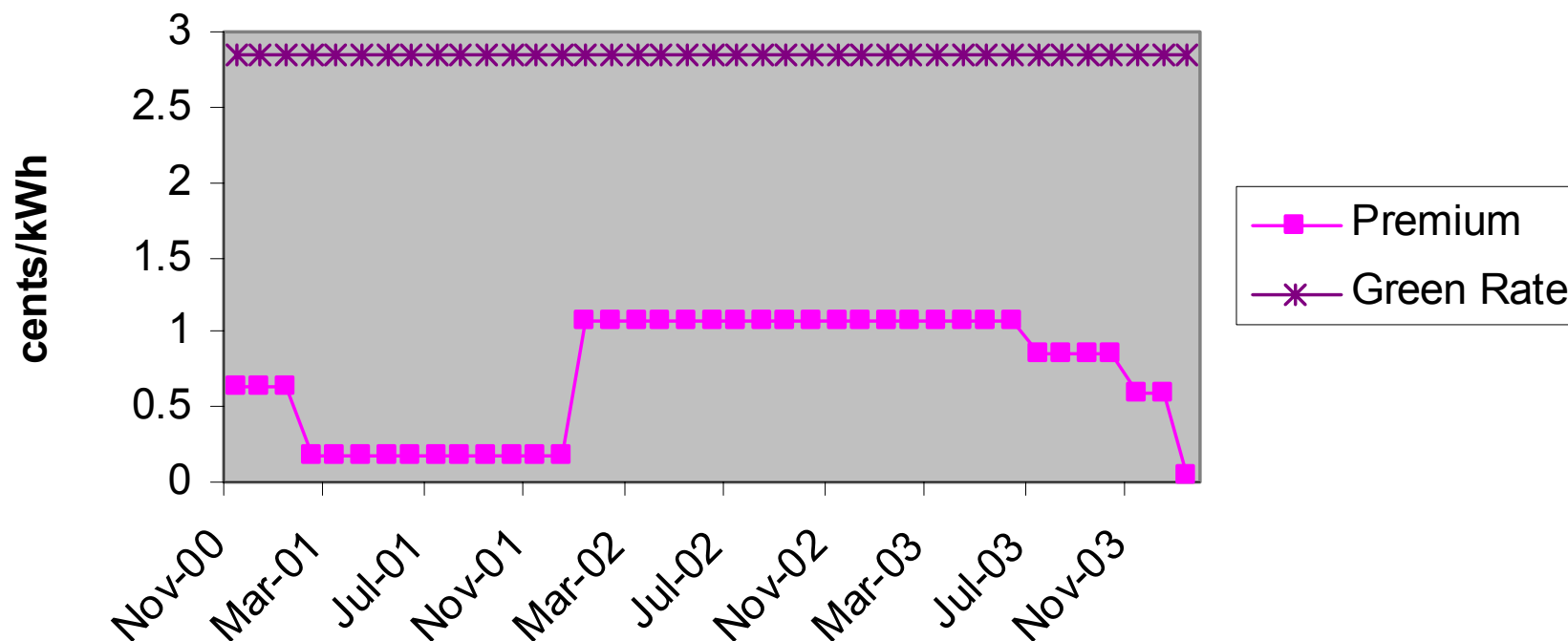
1. Exempt customers from monthly or periodic fuel-cost adjustments
 - Typically pro-rated for customers that are not purchasing 100% renewable energy
 - Most common approach
2. Offer fixed-price green power product
3. Exempt customers from environmental costs related to fossil fuel generation sources
 - Xcel exempts wind power customers from air quality rider used to clean up coal plants

Austin Energy's *GreenChoice* Program

- Austin offers a 10-year fixed price for green power (length of supply contracts)
 - Fixed rate for *GreenChoice* is 2.85¢/kWh
 - Large customers are required to sign up for five years
- Customers pay green rate rather than fuel charge
 - Fuel charge changes over time
 - Current premium is about half of a cent
 - Will drop to historic low (0.05¢/kWh) in Jan 2004
- Non-residential customer demand is high
 - Businesses accounted for 50% of sales in 2002
 - Leading program in terms of overall sales

Effective Premium for Austin's *GreenChoice* Program

Austin Energy's GreenChoice Program

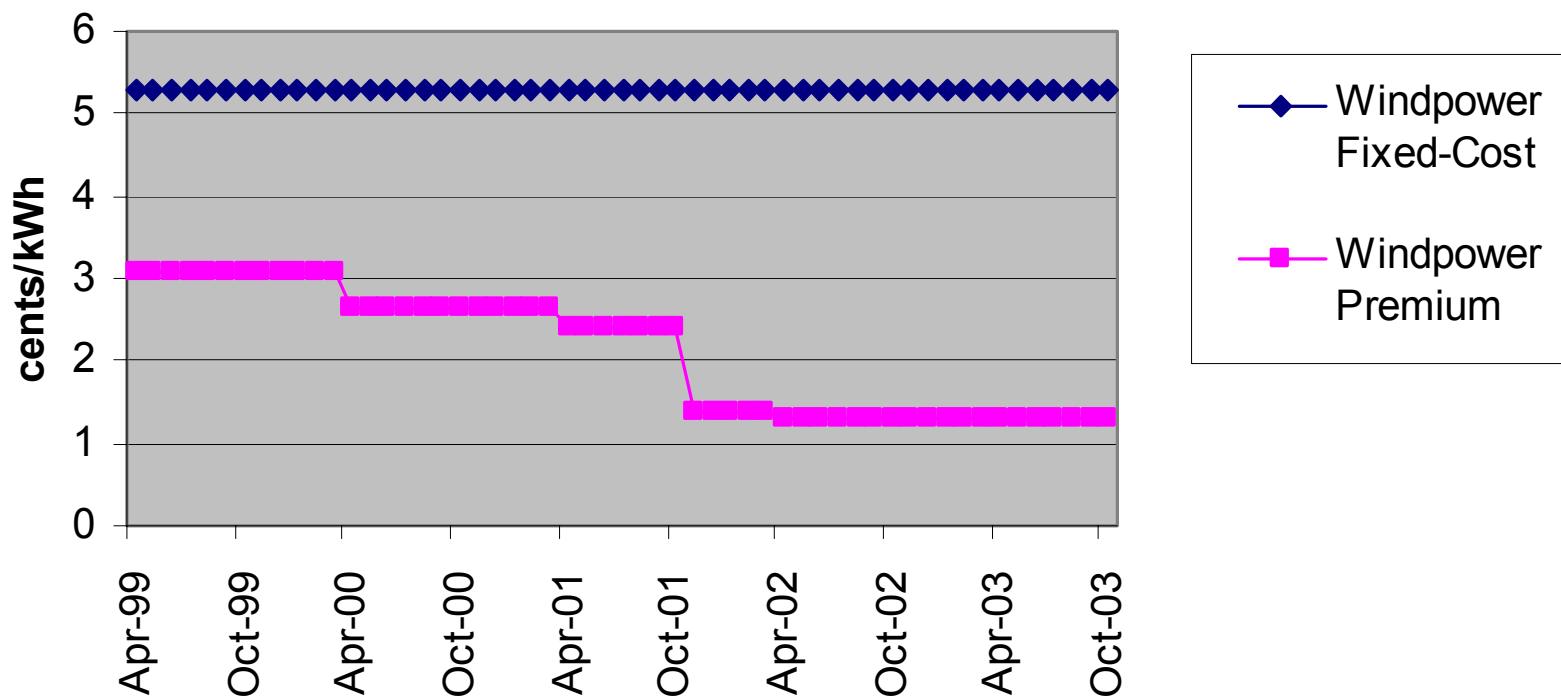


EWEB's *Windpower* Program

- EWEB offers fixed rate for three years
 - EWEB evaluates the wind rate and adjusts for inflation, actual generation and O&M costs
 - Initial price of wind power set at 5.274¢/kWh, resulting in a premium of 3.09¢/kWh
 - Rate unchanged after first evaluation period
- EWEB exempts wind customers from non-wind rate increases and conventional power surcharges.
- Four rate increases in four years have lowered the effective premium by nearly 60%.

Effective Premium for EWEB's *Windpower*

EWEB Windpower Program

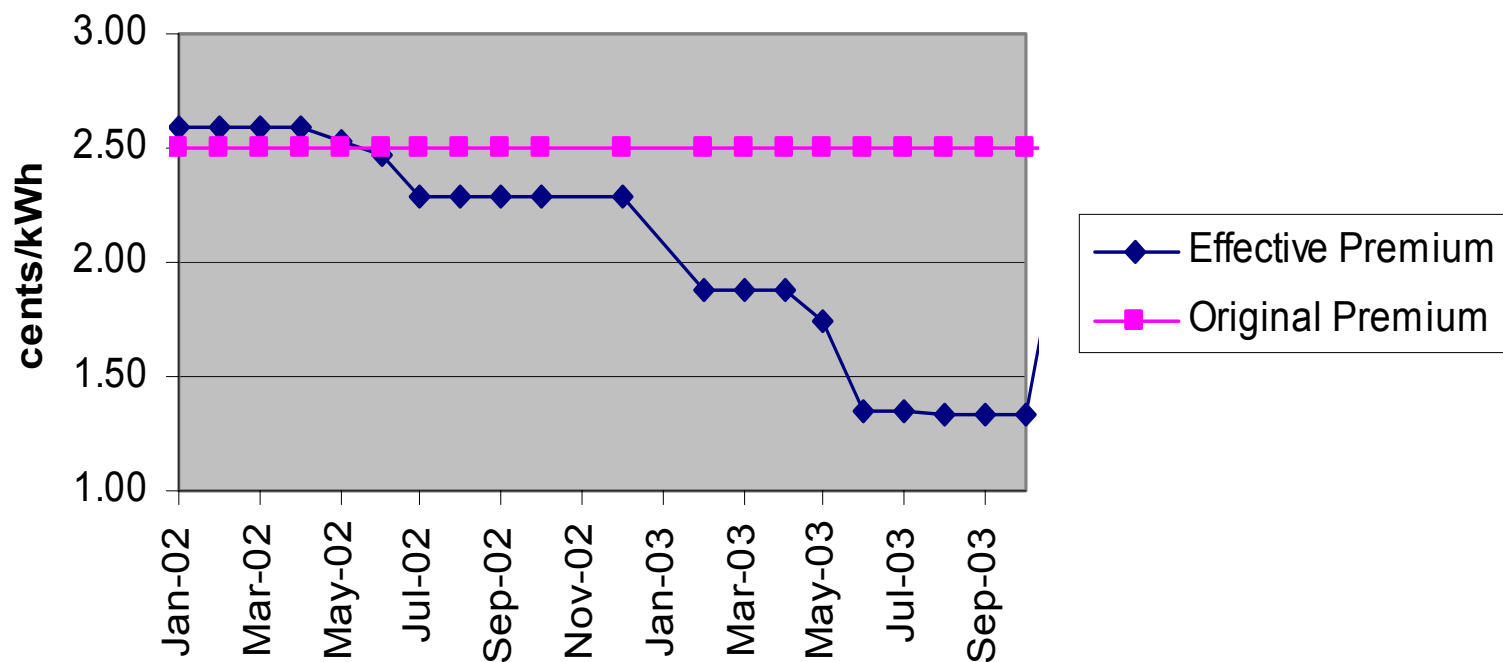


Xcel Energy *Windsource*

- Xcel exempts its Colorado customers from monthly fuel-cost adjustments
- Also exempts its wind power customers from air quality rider of 0.14¢/kWh
 - Rider used to clean up emissions at coal-fired power plants
- Recent fuel-cost increases have reduced the effective premium by about 45%
- Xcel is planning to move to a fixed-rate product.

Effective Premium for Xcel's *Windsource* Program

Xcel Energy Windsource Program



Effect of Price Protection Benefits on Green Power Premiums

State	Utility	Resources	Initial Premium	Effective Premium 10/03	% Change
TX	Austin	Wind, landfill gas, solar	0.65	0.59	-9%
OR	EWEB	Wind	3.09	1.29	-58%
WI	We Energies	Wind, hydro, biomass	2.0	1.60	-20%
CO	Xcel Energy	Wind	2.5	1.34	-46%

Summary and Observations

- Price stability is an important value for customers
- Offering a fixed-rate product or “green rate” should be a preferred approach
 - Fuel-cost exemptions may be temporary
 - *Example:* Alliant’s effective price premium in WI fell by 30% but was subsequently reset to the initial level after a rate case.
- Could increase demand for green power
- Some risk to green customers if conventional fuel prices decline
 - Utilities could peg the initial premium as a maximum

Issues with Establishing a “Green Rate”

- What is included in the “green rate”?
 - Cost of backing up intermittent resources?
 - Marketing and administrative costs?
- Is there a need to set a new rate once the initial renewables supply is subscribed?
 - Subsequent projects may have different costs
- What if customers drop the “green rate” when conventional fuel costs decline?
 - Austin requires C&I customers to sign up for five years